

## 510(k) Summary: Oral Fluid Phencyclidine Assay

---

**Introduction** According to the requirements of 21 CFR 807.92, the following information provides sufficient detail to understand the basis for a determination of substantial equivalence.

---

**Submitter** Roche Diagnostics  
**Name, Address,** 9115 Hague Rd.  
**Contact** Indianapolis, IN 46250  
317-521-3742

JAN 25 2011

Contact Person: Michelle Neff  
Date Prepared: January 27, 2011

---

**Device Name** Proprietary name: Oral Fluid Phencyclidine Assay  
Common name: Phencyclidine test system  
Classification name: Enzyme Immunoassay, Phencyclidine  
Product Code: LCM

---

**Device Description** The DAT oral fluids assays are based on the kinetic interaction of microparticles in a solution (KIMS) technology. The DAT oral fluids assays are qualitative and semi-quantitative. In the absence of sample drug, soluble drug conjugates bind to antibody-bound microparticles, causing formation of particle aggregates. As the aggregation reaction proceeds in the absence of sample drug, the absorbance increases. When an oral fluid sample contains the drug in question, this drug competes with the drug derivative conjugate for microparticle-bound antibody. Antibody bound to sample drug is no longer available to promote particle aggregation, and subsequent particle lattice formation is inhibited. The presence of sample drug diminishes the increasing absorbance in proportion to the concentration of drug in the sample. Sample drug content is determined relative to the value obtained for a known cutoff concentration of drug.

Multi-analyte calibrator and control solutions are prepared from NIST traceable, commercially available solutions. A stock solution is prepared gravimetrically and verified by LC/MS/MS. The product calibrators are prepared gravimetrically by spiking phencyclidine into a synthetic oral fluid matrix at the following concentrations: 0, 1, 2, 4, 8, and 16 ng/mL. Controls are prepared gravimetrically in a synthetic oral fluid matrix at concentrations  $\pm 50\%$  of the cutoff. All calibrator and controls concentrations are verified by LC/MS/MS.

---

---

**Intended Use**

DAT Oral Fluid Phencyclidine (OFMA) is an in vitro diagnostic test for the qualitative and semiquantitative detection of Phencyclidine in human oral fluid at a cutoff concentration of 6 ng/mL in neat oral fluid. The specimen must be collected exclusively with the Intercept® Oral Specimen Collection Device. Semiquantitative test results may be obtained that permit laboratories to assess assay performance as part of a quality control program and to estimate a dilution of the specimen for confirmation by a confirmatory method such as LC/MS/MS.

**DAT Oral Fluid Phencyclidine provides only a preliminary analytical test result. A more specific alternate chemical method must be used in order to obtain a confirmed analytical result. Chromatography/mass spectrometry is the preferred confirmatory method. Clinical consideration and professional judgment should be applied to any drug of abuse test result, particularly when preliminary positive results are used.**

---

**Comparison to Predicate Device**

The Oral Fluid Phencyclidine assay is substantially equivalent to other products in commercial distribution intended for similar use. Most notably, we claim substantial equivalence to the currently marketed PCP Intercept® Micro-Plate EIA assay (K000399).

<b>Comparison Table</b>		
<b>Feature</b>	<b>Roche Oral Fluid Phencyclidines Assay</b>	<b>Predicate Device: PCP Intercept® MICRO-PLATE EIA (K000399)</b>
Methodology	KIMS, Kinetic interaction of microparticles in solution	Competitive micro-plate immunoassay
Sample Type	Oral Fluid	Oral Fluid
Intended Use	Qualitative and semi-quantitative detection of Phencyclidine	Qualitative detection of Phencyclidine
Neat Cutoff	6 ng/mL	3 ng/mL
Controls	Synthetic oral fluid matrix: Zero, Negative (.5X), and Positive (1.5X)	Synthetic oral fluid matrix: Negative (.5X) and Positive (1.5X)
Calibrator	Synthetic oral fluid matrix: Zero, .5X, Cutoff, 2X, 4X, and 8X	Synthetic oral fluid matrix: Zero, Cutoff

---



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Silver Spring, MD 20993

Roche Diagnostics  
c/o Ms. Michelle Lee Neff  
9115 Hague Road  
Indianapolis, IN, 46250

Re: k093989  
Trade Name: DAT Oral Fluid Phencyclidine  
Regulation Number: 21 CFR 862.3100  
Regulation Name: Amphetamine Test System  
Regulatory Class: Class II  
Product Code: LCM, DKB, DIF  
Dated: January 7, 2011  
Received: January 24, 2011

JAN 25 2011

Dear Ms. Neff:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

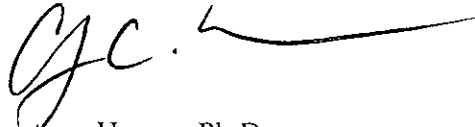
If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in Title 21, Code of Federal Regulations (CFR), Parts 800 to 895. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Parts 801 and 809); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); and good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820).

If you desire specific advice for your device on our labeling regulation (21 CFR Parts 801 and 809), please contact the Office of *In Vitro* Diagnostic Device Evaluation and Safety at (301) 796-5450. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'CHC', followed by a long horizontal line extending to the right.

Courtney Harper, Ph.D.  
Director  
Division of Chemistry and Toxicology  
Office of *In Vitro* Diagnostic Device  
Evaluation and Safety  
Center for Devices and Radiological Health

Enclosure

# Indications for Use Form

510(k) Number (if known): k093989

Device Name: DAT Oral Fluid Phencyclidine

## Indications for Use:

DAT Oral Fluid Phencyclidine (OFMA) is an in vitro diagnostic test for the qualitative and semiquantitative detection of Phencyclidine in human oral fluid at a cutoff concentration of 6 ng/mL in neat oral fluid. The specimen must be collected exclusively with the Intercept® Oral Specimen Collection Device. Semiquantitative test results may be obtained that permit laboratories to assess assay performance as part of a quality control program and to estimate a dilution of the specimen for confirmation by a confirmatory method such as LC/MS/MS.

**DAT Oral Fluid Phencyclidine provides only a preliminary analytical test result. A more specific alternate chemical method must be used in order to obtain a confirmed analytical result. Chromatography/mass spectrometry is the preferred confirmatory method. Clinical consideration and professional judgment should be applied to any drug of abuse test result, particularly when preliminary positive results are used.**

Prescription Use XX  
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use \_\_\_\_\_  
(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE  
IF NEEDED)

---

Concurrence of CDRH, Office of In Vitro Diagnostic Devices (OIVD)



Division Sign-Off  
Office of In Vitro Diagnostic Device  
Evaluation and Safety

510(k) k093989

# Indications for Use Form

510(k) Number (if known): k093989

Device Name: DAT Oral Fluid Phencyclidine

## Indications for Use:

The Oral Fluid DAT Control Set A is for use as assayed controls with the DAT Oral Fluid assays on automated clinical chemistry analyzers for human oral fluid samples collected with the Intercept Oral Specimen Collection Device.

The Oral Fluid DAT Qual Cal calibrators are designed for the calibration of oral fluid assays for drugs of abuse on automated clinical chemistry analyzers for human oral fluid samples collected with the Intercept Oral Specimen Collection Device.

The Oral Fluid DAT SQ Cal A calibrators are designed for the calibration of oral fluid assays for drugs of abuse on automated clinical chemistry analyzers for human oral fluid samples collected with the Intercept Oral Specimen Collection Device.

Prescription Use XX

(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use \_\_\_\_\_

(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE  
IF NEEDED)

---

Concurrence of CDRH, Office of In Vitro Diagnostic Devices (OIVD)



Division Sign-Off  
Office of In Vitro Diagnostic Device  
Evaluation and Safety

510(k) k093989